providing a plurality of semiconductor chips having a main surface, a back surface opposite the main surface thereof and electrode pads formed on the main surface thereof;

mounting the plurality of semiconductor chips on the plurality of product forming areas, respectively;

after the mounting step, treating the main surface of the substrate by plasma;

providing a molding die having a cavity therein;

after the treating step by plasma, arranging the substrate in the molding die as the plurality of semiconductor chips are positioned in the cavity and the plurality of product forming areas are facing to the cavity;

after the arranging step, block molding a resin enclosure sealing the plurality of semiconductor chips and the plurality of product forming areas by injecting resin into the cavity; and

after the block molding step, cutting the resin enclosure and the substrate along a periphery of each of the product forming areas.

30. A method of manufacturing a semiconductor device according to claim 29, wherein the cavity of the molding die has two sides opposed to each other, a gate formed on one side, of the two sides, and an air vent formed on the other side of the two sides, and

wherein in the block molding step, the resin is injected into the cavity from the gate to the air vent.

31. A method of manufacturing a semiconductor device according to claim 30, wherein in the treating step by plasma, impurities remaining on the main surface of the substrate are removed.

32. A method of manufacturing a semiconductor device according to claim 30, wherein in the treating step by plasma, the main surface of the substrate is roughened.

33. A method of manufacturing a semiconductor device according to claim 32, wherein the substrate is comprised of resin.

34. A method of manufacturing a semiconductor device according to claim 30, wherein the resin enclosure comprises a plurality of fillers.

35. A method of manufacturing a semiconductor device according to claim 34, wherein a volume content of the plurality of fillers in the resin enclosure is more than 80 volume percent.

36. A method of manufacturing a semiconductor device according to claim 35, wherein the plurality of fillers are comprised of silica fillers.

37. A method of manufacturing a semiconductor device according to claim 30, wherein in the mounting step, the electrode pads of the semiconductor chips are electrically connected with connecting electrodes of corresponding product

forming areas.

38. A method of manufacturing a semiconductor device according to claim 37, wherein in the mounting step, the substrate is heat treated.

39. A method of manufacturing a semiconductor device according to claim 30, wherein in the block molding step, peripheral space of the cavity is provided between the plurality of product forming areas and the air vent, and wherein a width of the peripheral space is larger than a width of spaces between the plurality of the product forming areas in plan view.

40. A method of manufacturing a semiconductor device according to claim 39, wherein in the treating step by plasma, impurities remaining on the main surface of the substrate are removed.

41. A method of manufacturing a semiconductor device according to claim 39, wherein in the treating step by plasma, the main surface of the substrate is roughened.

42. A method of manufacturing a semiconductor device according to claim 41, wherein the substrate is comprised of resin.

43. A method of manufacturing a semiconductor device according to claim 39, wherein the resin enclosure comprises a plurality of fillers.

44. A method of manufacturing a semiconductor device according to claim 43, wherein a volume content of the plurality of fillers in the resin enclosure is more than 80 volume percent.

45. A method of manufacturing a semiconductor device according to claim 44, wherein the plurality of fillers are comprised of silica fillers.

46. A method of manufacturing a semiconductor device according to claim 39, wherein in the mounting step, the electrode pads of the semiconductor chips are electrically connected with connecting electrodes of corresponding product forming areas.

47. A method of manufacturing a semiconductor device according to claim 46, wherein in the mounting step, the substrate is heat treated.

48. A method of manufacturing a semiconductor device according to claim 29, wherein in the mounting step, the electrode pads of the semiconductor chips are electrically connected with connecting electrodes of corresponding product forming areas.

49. A method of manufacturing a semiconductor device according to claim 29, wherein the treating step by plasma is performed so as to increase wettability to said substrate of the resin, of the resin enclosure, used in the step of block molding.

50. A method of manufacturing a semiconductor device according to claim 49, wherein said wettability of the resin, of the resin enclosure, to the substrate, is sufficiently increased by the treating step by plasma so as to dislodge voids during the block molding.

51. A method of manufacturing a semiconductor device according to claim 49, wherein said wettability of the resin, of the resin enclosure, to the substrate, is sufficiently increased by the treating step by plasma so as to dislodge voids, during the block molding, that are behind the semiconductor chips in the direction of flow of the resin during the block molding.

52. A method of manufacturing a semiconductor device according to claim 51, wherein the treating step by plasma uses an oxygen or argon gas.

53. A method of manufacturing a semiconductor device according to claim 49, wherein the treating step by plasma uses an oxygen or argon gas.

54. A method of manufacturing a semiconductor device according to claim 29, wherein the treating step by plasma uses an oxygen or argon gas.--